

**Month:** August 2023

- **NEWS FROM THE SOLAR SECTION**



August was a good start for the ASSA solar section. Two astronomy associations were willing to work together with the ASSA solar section and I would like to take the opportunity to thank and welcome the British Astronomy Association (BAA) and the Mexborough and Swinton Astronomy society (MSAS) both from the United Kingdom. Working together will take the ASSA solar section to new heights in solar science in Africa. Two observers from the BAA and MSAS were actively involved in August namely Andrew Devey from BAA and MSAS living in Spain and Mick Nicholls from BAA and MSAS living the United Kingdom.

A Whatsapp group, "Solar section ASSA/MSAS/BAA" was developed where information, images, Q&A etc can be shared. When you become a member of the solar section you will be added to the group.

• **SUNSPOT OBSERVATIONS**

Day	Time	Groups	Spots	R no.	North Groups	South groups	North spots	South spots
1	1100	7	22	92	4	3	16	6
2	1120	6	16	76	4	2	9	7
3	1120	7	15	85	4	3	10	5
4								
5	1145	6	12	72	5	1	11	1
6	1145	6	9	69	5	1	8	1
7	1150	6	13	73	5	1	11	2
8	1105	6	10	70	5	1	7	3
9	1055	5	10	60	4	1	9	1
10	1225	4	9	49	3	1	8	1
11								
12	1055	3	11	41	2	1	10	1
13	1025	3	8	38	1	2	1	7
14	1110	5	11	61	3	2	8	3
15	1115	6	14	74	3	3	9	5
16								
17								
18	1125	6	13	73	2	4	7	6
19								
20	1050	5	7	57	4	1	3	4
21	1115	6	6	66	5	1	5	1
22	1500	6	6	66	5	1	5	1
23	1215	5	6	56	4	1	4	2
24	1125	5	12	62	4	1	10	2
25								
26								
27	1340	5	10	60	4	1	9	1
28	1340	4	7	47	2	2	4	3
29	1035	5	11	61	2	3	5	6
30	1105	4	9	49	1	3	4	5
31	1140	5	11	61	2	3	5	6

Groups	Spots	R no.	North Groups	South groups	North spots	South spots
126	258	1518	83	43	178	80

Observation Days	24
Total Sunspots Observed	1518
Observers	1
<b>Monthly Daily Mean Frequencies - MDF</b>	
Total sunspots	63.3
Total Groups	5.3
Northern Groups	3.5
Southern Groups	1.8

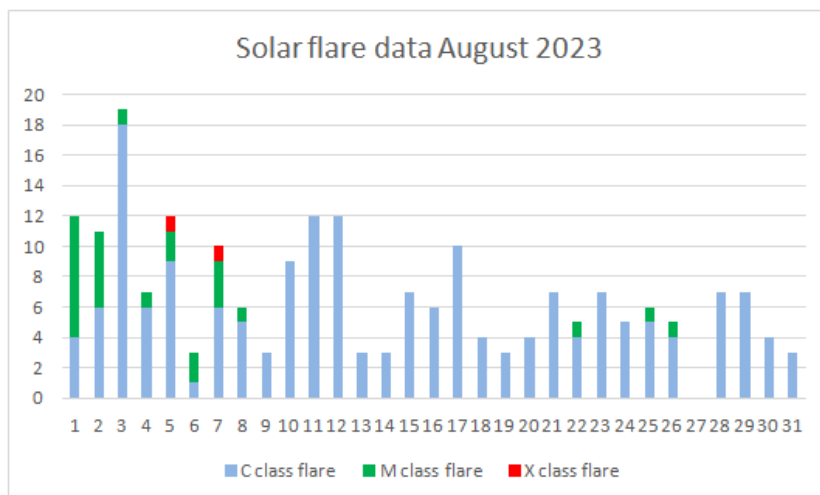
Observers:

Jacques van Delft                      ASSA Bloemfontein South Africa

When more than 1 observer is submitting sunspots, the average per day is calculated and noted.

- **SOLAR FLARE ACTIVITY JULY 2023**

Solar flares are classified according to their x-ray brightness in the wavelength range 1 to 8 Angstrom. There are 3 categories: C class – minor, M class – medium and X class – big. Each category has 9 subdivisions.



2023	August	C class	M class	X class
	1	4	8	
	2	6	5	
	3	18	1	
	4	6	1	
	5	9	2	1
	6	1	2	
	7	6	3	1
	8	5	1	
	9	3		
	10	9		
	11	12		
	12	12		
	13	3		
	14	3		
	15	7		
	16	6		
	17	10		
	18	4		
	19	3		
	20	4		
	21	7		
	22	4	1	
	23	7		
	24	5		
	25	5	1	
	26	4	1	
	27	0		
	28	7		
	29	7		
	30	4		
	31	3		
	Totals	184	26	2

NASA  
Credit: SDO

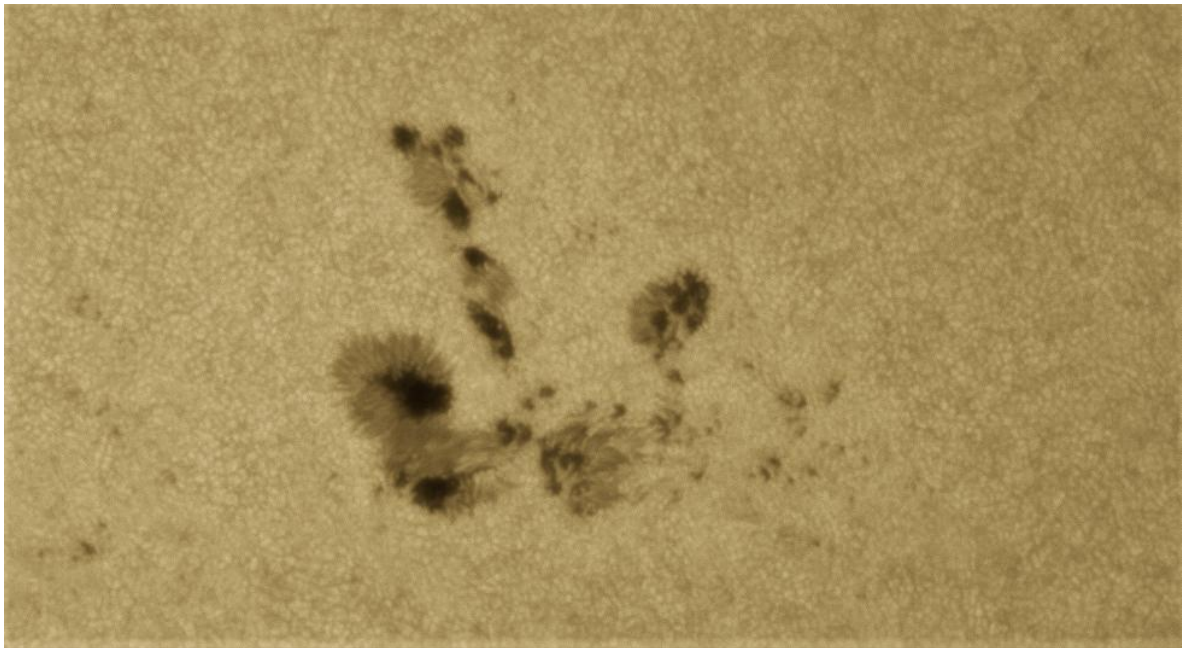
In the first 9 days of August, the Sun was active with M and X class flares. From the 9<sup>th</sup> to the end of the month the flare activities decreased to only C class flares and only 3 M class flares.

- **H Alpha Observations**

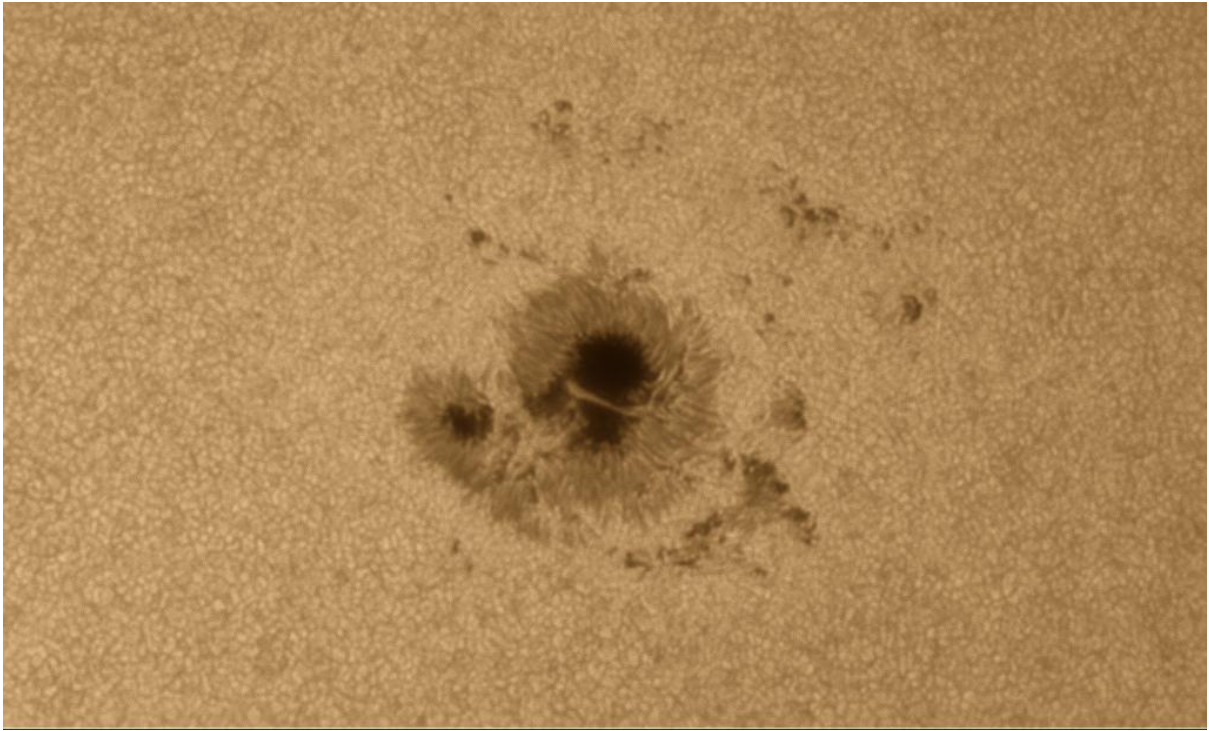
Two observers shared their H Alpha data for August 2023. Andrew Devey from BAA & MSAS living in Spain using a PST double stack H Alpha telescope, and Mick Nicholls from BAA and MSAS living in the United Kingdom using a PST 40mm single or double stack H Alpha telescope.

August 23	Counts	Observations	MDF
Prominence	181	37	4.9
Plague Areas	148	37	4.0
Filaments	235	37	6.4
Flares	4	37	0.1

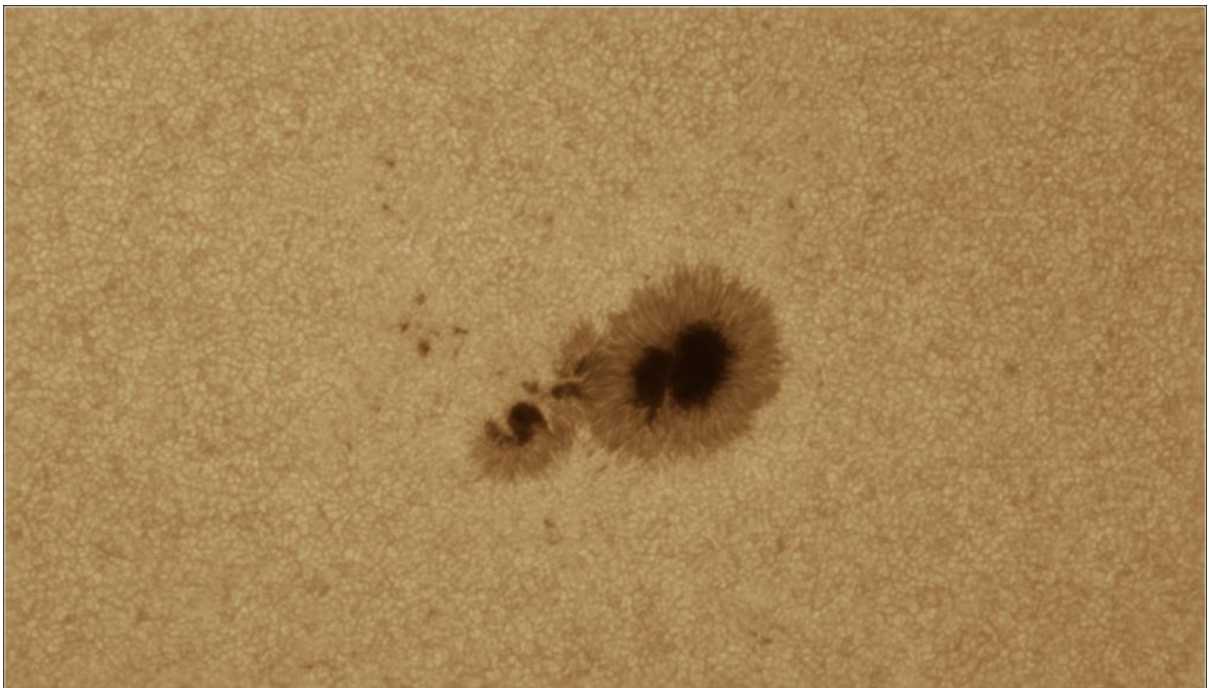
- **Solar images**



Andrew Devey BAA & MSAS image of AR3395

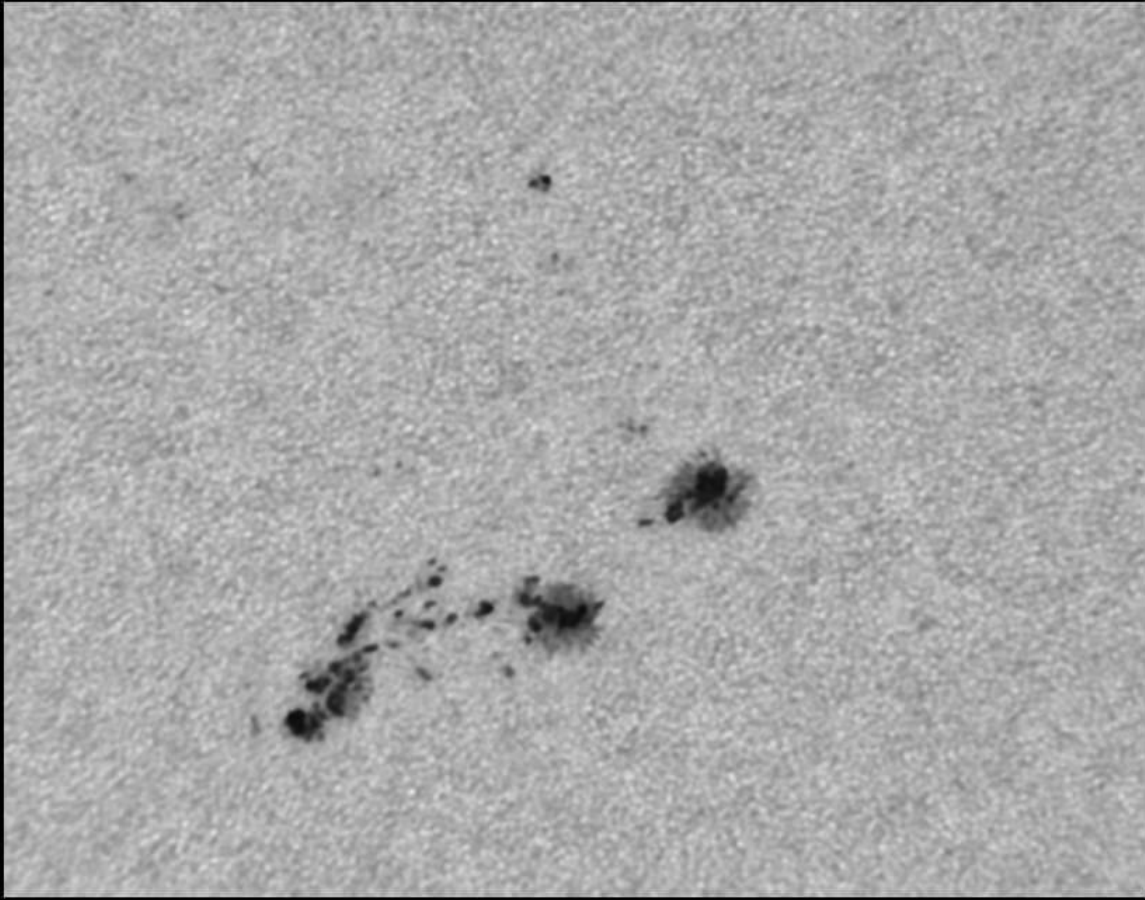


Andrew Devey BAA & MSAS Sunspot AR 3413



Andrew Devey BAA & MSAS Sunspots AR3415

AR3421 IN WHITE LIGHT 5th SEPTEMBER 2023 @11.55amGMT  
80mm STARWAVE ED-R REFRACTOR HERSCHEL WEDGE DMK31 CAMERA



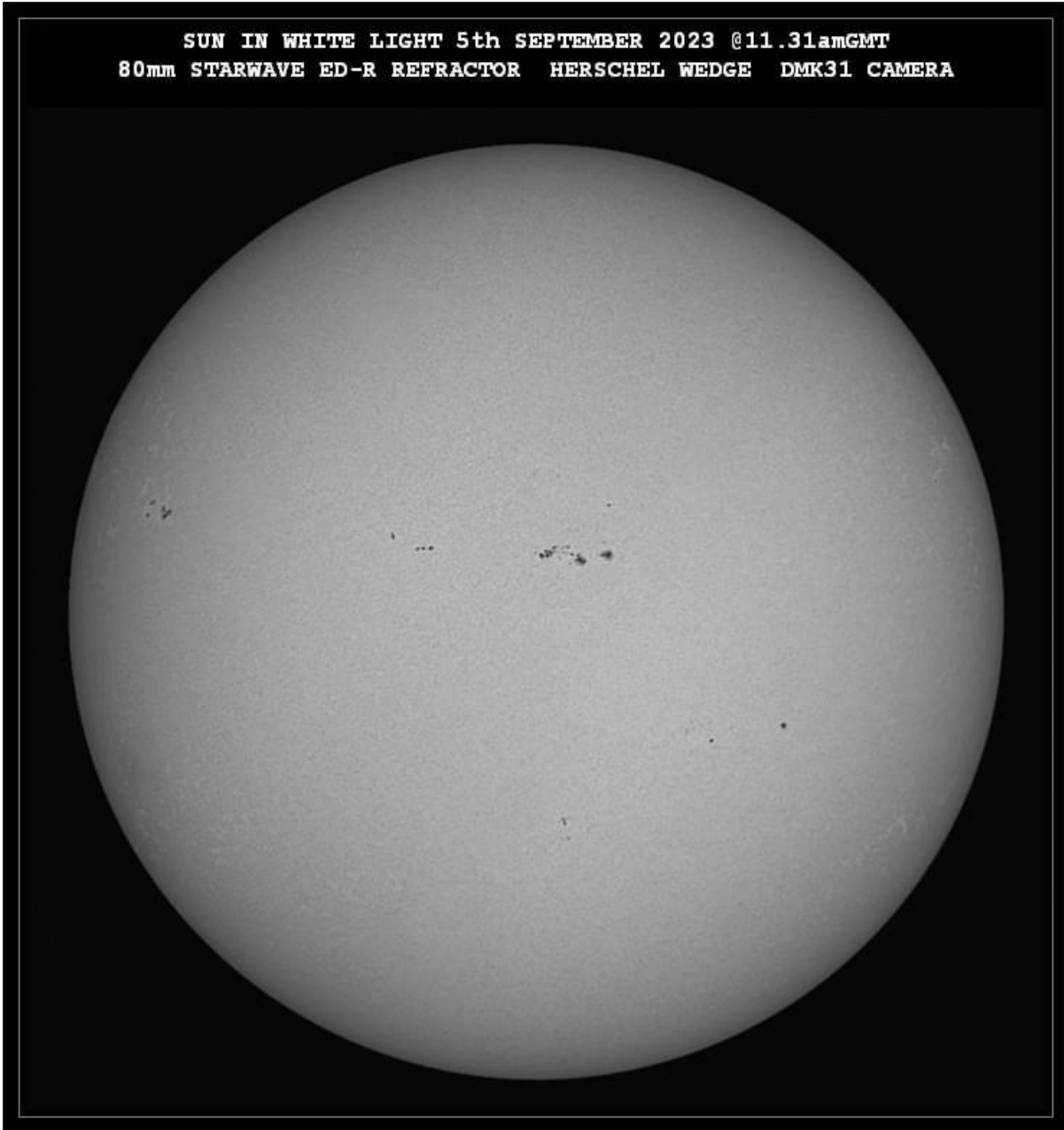
Mick Nicholls BAA & MSAS

SUN IN H-ALPHA 5th SEPTEMBER 2023 @09.05amGMT  
40mm SINGLE SATCK PST ZWO ASI174MM CAMERA

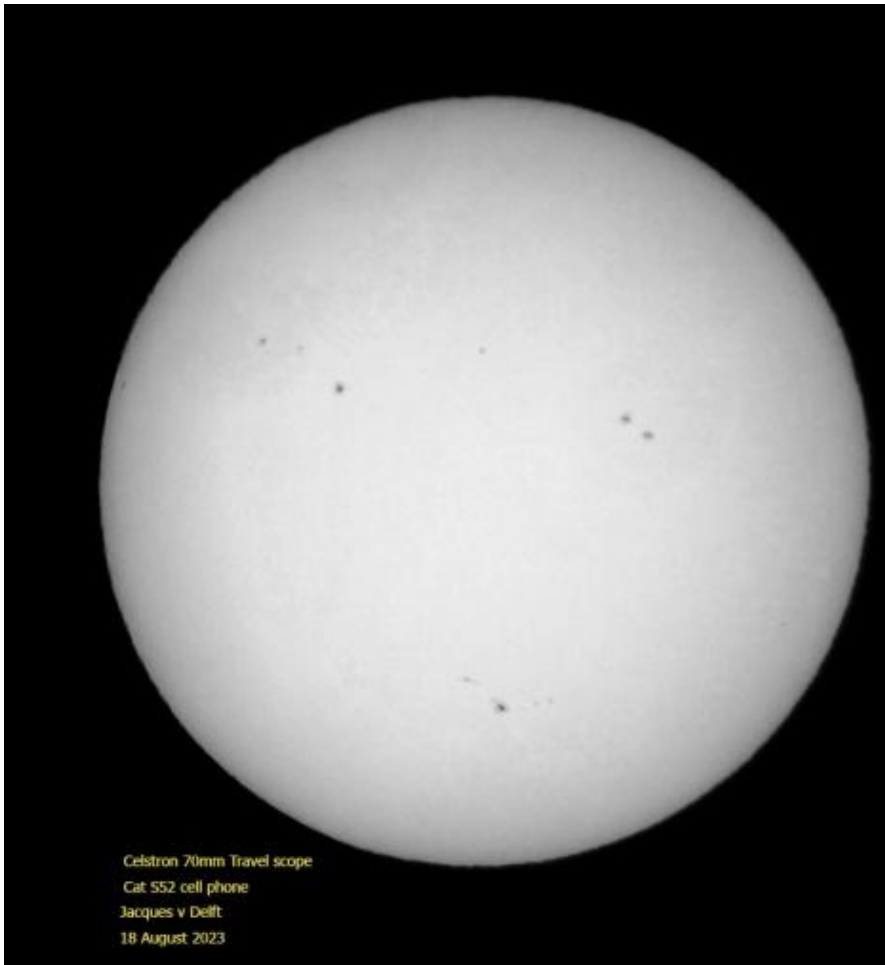


Mick Nicholls BAA & MSAS





Mick Nicholls BAA & MSAS



Jacques van Delft ASSA

Clear Skies

Jacques van Delft

Solar Section ASSA